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Applicant:

Sususmu SEINO et al.

Serial No.:

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For

PROTEIN RIM2

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Group Art Unit : Not yet kno

Examiner

: Not yet known



INFORMATION DISCLOSURE STATEMENT

Commissioner of Patents and Trademarks Washington, DC 20231

Sir:

In accordance with 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicant hereby brings the following information to the attention of the Examiner in charge of the above-identified application:

Rothman, J.E., *Mechanisms of Intracellular Protein Transport*, Nature, 372, 55-63 (1994), is cited and discussed in the specification beginning at page 2, line 17.

Südhof, T.C., *The Synaptic Vesicle Cycle: A Cycle of Protein-Protein Interactions*, Nature, 375, 645-653 (1995), is cited and discussed in the specification beginning at page 2, line 17.

Hawkins, R.D., et al., Learning to Modulate Transmitter Release: Themes and Variations in Pynaptic Plasticity, Annu. Rev. Neurosci., 16, 625-665 (1993) is cited and discussed in the specification beginning at page 2, line 24.

Lonart, G., et al., *Mechanisms of Action of rab3A in Mossy Fiber LTP*, Neuron, 21, 1141-1150 (1998), is cited and discussed in the specification beginning at page 2, line 24.

Renström, E., et al., *Protein Kinase A-Dependent and Independent Stimulation of Exocytosis* by cAMP in Mouse Pancreatic B-Cells, J. Physiology, 502.1, 105-118 (1997), is cited and discussed

in the specification beginning at page 2, line 27.

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Yoshimura, K., et al., Cyclic AMP Potentiates Substance P-Induced Amylase Secretion by Augmenting the Effect of Calcium in the Rat Parotid Acinar Cells, Biochemica et Biophysica Acta, 1402, 171-187 (1998) is cited and discussed in the specification beginning at page 2, line 27.

De Rooij, J., et al., *Epac is a Rap1 Guanine-Nucleotide-Exchange Factor Directly Activated by Cyclic AMP*, Nature, 396, 474-477 (1998), is cited and discussed in the specification beginning at page 3, line 10.

Kawasaki, H., et al., A Family of cAMP-Binding Proteins that Directly Activate Rap1, Science, 282, 2275-2279 (1998), is cited and discussed in the specification beginning at page 3, line 10.

Wang, Y., et al., Rim is a Putative Rab3 Effector in Regulating Synaptic-Vesicle Fusion, Nature, 388, 593-598 (1997), is cited and discussed in the specification beginning at page 4, line 20.

Mutagenesis of Cloned DNA, Current Protocols in Molecular Biology, Vol. 1, Chapter 8, 8.0.1-8.5.10 (1997), is cited and discussed in the specification beginning at page 7, line 17.

Expression Vectors, Catalog of Vectors, BIOS Scientific Publishers Ltd., 9-12 (1994), is cited and discussed in the specification beginning at page 7, line 27.

Introduction of Plasmid DNA into Cells, Current Protocols in Molecular Biology, Vol 1, Unit 1.8, 1.8.1-1.8.10 (1997), is cited and discussed in the specification beginning at page 7, line 32.

Introduction of DNA into Mammalian Cells, Current Protocols in Molecular Biology, Vol 1, Chapter 9, 9.0.1-9.8.2 (1997), is cited and discussed in the specification beginning at page 8, line 5.

Transduction of Genes Using Retrovirus Vectors, Current Protocols in Molecular Biology, Vol 1, Unit 9.9, 9.9.1-9.17.3 (1996), is cited and discussed in the specification beginning at page 8,

line 5.

Immunology, Current Protocols in Molecular Biology, Vol 1, Chapter 11, 11.0.1-11.16.13 (1997), is cited and discussed in the specification beginning at page 8, line 23.

Prentki, M. and Matschinsky, F. M., Ca^{2+} , cAMP, and Phospholipid-Derived Messengers in Coupling Mechanisms of Insulin Secretion, Phys. Reviews, 67, 4, 1185-1248 (1987), is cited and discussed in the specification beginning at page 12, line 6.

Shirataki, H., et al., *Rabphilin-3A*, a Putative Target Protein for smg p25A/rab3A p25 Small GTP-Binding Protein Related to Synaptotagmin, Mol. Cell. Biol., 13, 4, 2061-2068 (1003), is cited and discussed in the specification beginning at page 12, line 18.

Li, C., et al., Synaptic Targeting of Rabphilin-3A, a Synaptic Vesicle Ca²⁺/Phospholipid-Binding Protein, Depends on rab3A/3C, Neuron, 13, 885-898 (1994), is cited and discussed in the specification beginning at page 13, line 2.

Kotake, K., et al., *Noc2, a Putative Zinc Finger Protein Involved in Exocytosi in Endocrine Cells*, J. Biol. Chem., 272, 47, 29407-29410 (1997), is cited and discussed in the specification beginning at page 13, line 25.

Steinberg, R.A., et al., *Activation of Type I Cyclic AMP-Dependent Protein Kinases with Defective Cyclic AMP-Binding Sites*, J. Biol. Chem., 262, 6, 2664-2671 (1987), is cited and discussed in the specification beginning at page 14, line 2.

Tanaka, J., et al., Cellular Distribution of the $P2X_4$ ATP Receptor mRNA in the Brain and Non-Neuronal Organs of Rats, Arch. Histol. Cytol., 59, 5, 485-490 (1996), is cited and discussed in the specification beginning at page 15, line 6.

Copies of the above-noted documents are enclosed together with a duly completed form PTO-1449. The Examiner is accordingly requested to consider each of these documents, and to make them of record in this application by initialing in the appropriate spaces on the Form PTO-1449. Applicant respectfully requests that the Examiner include a copy of the initialed Form PTO-1449 with the next communication from the U.S. Patent and Trademark Office.

Should the Examiner have any questions or comments regarding this matter, the undersigned may be contacted at the below-listed telephone number.

Respectfully submitted,

Sususmu SEINO et al.

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October 16, 2000 GREENBLUM & BERNSTEIN, P.L.C. 1941 Roland Clarke Place Reston, VA 20191 (703) 716-1191